

**MULTI-PATH VIA INTERCONNECTION STRUCTURES AND METHODS FOR
MANUFACTURING THE SAME**

ABSTRACT

5 A multilayered circuit component includes one or more substrates. A first surface
of one of the substrates includes circuit paths and other current carrying elements. A
second surface of the same or another substrate also includes circuit paths and other current
carrying elements. An aperture extends through at least a portion of the one or more
substrates. The aperture is defined by a first opening on the first surface, a second opening
10 on the second surface, and an internal surface of the one or more substrates that extends
between the first surface and the second surface. A first trace element is provided over a
portion of the internal surface of the aperture to extend between the first surface and the
second surface. The first trace element extends onto the first surface to form a first partial
perimeter of the first opening. A second trace element is provided over a portion of the
15 internal surface of the aperture to extend between the first surface and the second surface.
The second trace element extends onto the first surface to form a second partial perimeter
of the first opening.